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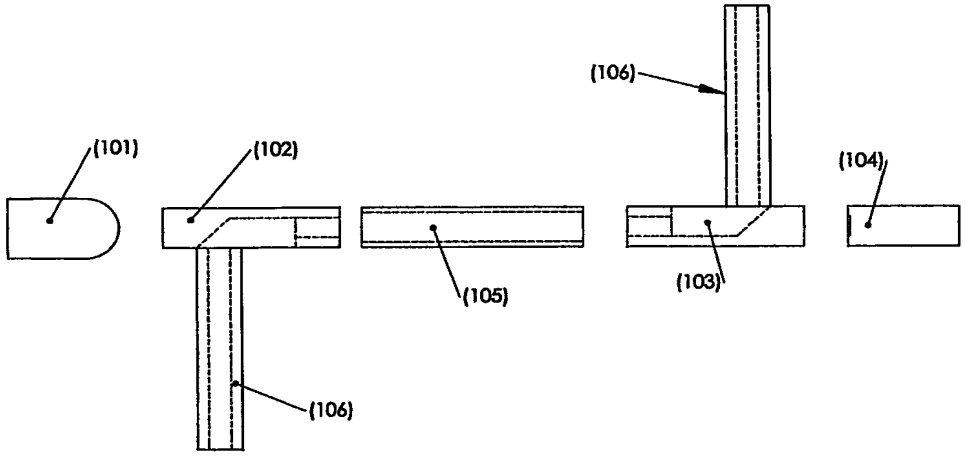
(54) Title: DEVICE, SYSTEM AND METHOD OF DETECTING TARGETS IN A FLUID SAMPLE



(57) Abstract: The present invention provides a biochemical detection system that comprises an exchangeable cartridge unit with light guiding tubes pre-coated with capture agent(s) and an optical detection unit. Upon flowing the liquid or gaseous sample containing the target(s) through the cartridge unit, the target(s) bind(s) to the capture agent(s) and is (are) detected by the amount of light or the variation of its properties while guided through the tubes. The optical detection unit is comprised of a light emitting element(s), a light connecting element(s) and a light detecting element(s) that delivers the amount of target(s) in the sample under investigation.

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